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DATASHEET

L-Quisqualic acid

Product overview

Name	L-Quisqualic acid
Cat No	HB0387
Alternative names	QA, Quis, Quisqualate
Biological action	Agonist
Purity	>99%
Description	AMPA receptor agonist and group I mGlu agonist

Images



Biological Data

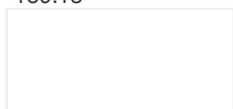
Biological description	AMPA receptor agonist and group I mGlu agonist. Sensitizes hippocampal neurons to depolarization by excitatory amino acid analogues such as L-AP4 , and L-AP6 ("the Quis effect"). Can also act as an excitotoxin and is used to lesion areas of the brain in rat models.
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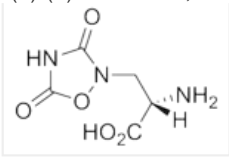
Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in NaOH(aq) (100mM, 1eq. NaOH) or water (10mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	(L)-(+)- α -Amino-3,5-dioxo-1,2,4-oxadiazolidine-2-propanoic acid
Molecular Weight	189.13
Chemical structure	



Chemical name	(L)-(+)- α -Amino-3,5-dioxo-1,2,4-oxadiazolidine-2-propanoic acid
	
Molecular Formula	C ₅ H ₇ N ₃ O ₅
CAS Number	52809-07-01
PubChem identifier	40539
SMILES	O=C1N(C[C@]([H])(N)C(O)=O)OC(N1)=O
InChi	InChI=1S/C5H7N3O5/c6-2(3(9)10)1-8-4(11)7-5(12)13-8/h2H,1,6H2,(H,9,10)(H,7,11,12)/t2-/m0/s1
InChiKey	ASNFTDCKZKHJSW-REOHCLBHSA-N
MDL number	MFCD00069337
Appearance	White solid

References

L-Quisqualic acid transport into hippocampal neurons by a cystine-sensitive carrier is required for the induction of quisqualate sensitization.

Chase LA *et al* (2001) Neuroscience 106(2)

PubMedID [11566501](#)

C-fos expression in the rat nucleus basalis upon excitotoxic lesion with quisqualic acid: a study in adult and aged animals.

Giovannelli L *et al* (1998) J Neural Transm 105(8-9)

PubMedID [9869327](#)

Prolonged nociceptive responses to hind paw formalin injection in rats with a spinal cord injury.

Lee JW *et al* (2008) Neurosci Lett 439(2)

PubMedID [18524486](#)

Effects of quisqualic acid analogs on metabotropic glutamate receptors coupled to phosphoinositide hydrolysis in rat hippocampus.

Littman L *et al* (1995) Neuropharmacology 34(8)

PubMedID [8532164](#)